Claims 1-21 are pending and rejected. Claims 1, 2, 9-12, 14, 16, 17, 19, and 20 are

rejected under 35 U.S.C. §103(a) as being unpatentable over Smith, et al., in view of Alpha

Architecture Handbook ("Alpha"), and Colwell, et al. Claims 3-8, 13, 15, 18, and 21 are

rejected under 35 U.S.C. §103(a) as being unpatentable over Smith et al. in view of Alpha,

Colwell et al., and Rotenburg et al., Trace Cache: A Low Latency Approach to High

Bandwidth Instruction Fetching. The status identifier of claim 17 has been corrected to

comply with the Notice of Non-Compliant Amendment. The status identifier of claim 5 has

been corrected to comply with 37 CFR 1.121. Amended claims 14, 15, and 16 have been

reformatted to improve clarity and to comply 37 CFR 1.121. No substantive changes have

been made to the claims.

Claim Rejections Under 35 U.S.C. §103(a)

The physical zero register disclosed in Alpha is a zero register that is explicitly

dedicated as such by the instruction set architecture. "Register R31 is assigned special

meaning by the Alpha architecture." (Alpha, 3-1, section 3.1.2 entitled "Integer Registers").

As the examiner points out in the office action, Smith et al. teaches a "zero-generating

apparatus for use with an instruction set architecture without an r0 register." If a computer

architecture contains a dedicated zero register like the one described in Alpha, then there is

no need for and no benefit in having a zero generating apparatus like the one taught in Smith.

Alpha and Smith teach two different ways of accomplishing the same objective - zero

generation. As the examiner states in the office action, the purpose of a physical zero register

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like the one taught in Alpha is to eliminate the need for a zeroing instruction, like the one

taught in Smith. As evidenced by the examiner's description of Alpha, Alpha and Smith et

al. in fact teach away from combining. Since the Alpha and Smith references cannot be

properly combined, the office action fails to make a prima facie case of obviousness as

required under 35 U.S.C. §103(a). Applicant respectfully submits that for the reasons above,

claims 1, 14, and 17 are in condition for allowance. Applicant further respectfully submits

that claims 2-13, 15-16, and 18-21 are allowable as depending from the allowable

independent claims 1, 14, and 17.

Based on the arguments and amendments above, reconsideration and withdrawal of

the rejection of claims 1-21 under 35 U.S.C. §103(a) is respectfully requested.

Request for Allowance

For all the above reasons, the Applicant respectfully submits that this application is in

condition for allowance. A Notice of Allowance is earnestly solicited.

The Examiner is invited to contact the undersigned at (408) 975-7500 to discuss any

matter concerning this application. The Office is hereby authorized to charge any additional

fees or credit any overpayments under 37 C.F.R. §1.16 or §1.17 to Deposit Account No. 11-

0600.

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Respectfully submitted, KENYON & KENYON

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